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managed by Brookhaven Science Associates
for the U.S. Department of Energy

Mr. Brian Jankauskas
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 12th Floor
New York, New York 12233-7051

December 4, 2020

Ms. Sharon Hartzell
Federal Facilities Section
U.S. EPA – Region II
290 Broadway – 18th Floor
New York, New York 10007-1866

Dear Mr. Jankauskas and Ms. Hartzell:

**SUBJECT: BROOKHAVEN NATIONAL LABORATORY (BNL) INTERAGENCY
AGREEMENT (IAG) – MONTHLY REPORT FOR NOVEMBER 2020**

In accordance with the Interagency Agreement (IAG) for Brookhaven National Laboratory (BNL), enclosed is the Monthly Report for November 2020 covering the Long-term Stewardship (LTS) areas listed below:

- Brookhaven Graphite Research Reactor (BGRR) Surveillance and Maintenance
- High Flux Beam Reactor (HFBR), including the Waste Loading Area (WLA) Surveillance and Maintenance
- Soil and Water Remediation

If you have any questions, please call Gerald Granzen at (631) 344-4089.

Sincerely,

Robert F. Howe for WD

William Dorsch, Manager
Groundwater Protection Group

Enclosure:

As stated

cc: w/encl.

P. Armani, NYSDEC
C. Costello, NYSDOH
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File: GWER 17.1.20

**Brookhaven National Laboratory
Interagency Agreement (IAG) Monthly Report
November 2020
Long Term Stewardship (LTS) Activities**

**BROOKHAVEN GRAPHITE RESEARCH REACTOR (BGRR) SURVEILLANCE AND
MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- Completed repairs to the doghouse siding.
- An entry was made into the below ground ducts to remove the leak detection sensor in the south duct that had failed. A follow-up entry will be made to install a new sensor.
- Temporary electric service was provided from the high bay to the east side of the BGRR building for use on planned work in adjacent Building 801 hot cells.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- None.

Planned Actions for the Next 90 Days

- Continue S&M activities.

**HIGH FLUX BEAM REACTOR (HFBR) INCLUDING, STACK, GROUNDS, AND WASTE
LOADING AREA (WLA) SURVEILLANCE AND MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- BSA and BHSO participated in the weekly stack demolition coordination teleconferences with the Army Corps of Engineers (USACE) and DOE's Office of Environmental Management (EM).
- The contractor completed stack exterior coating abatement.
- BSA, DOE and USACE participated in the stack crane setup pre-demolition teleconference 11/5/20.
- The crane was mobilized to the site and the Mantis demolition equipment was deployed to the top of the stack 11/19/20. The contractor breached/removed the debris opening at the base of the stack and began installation of the K-bracket scaffold, power and utilities.

- DOE-EM briefed the regulators on the status of the stack demolition during the 11/5/20 IAG monthly teleconference.
- The Community Advisory Council (CAC) was briefed on the stack demolition status during the 11/12/20 meeting.
- Community Air Monitoring Plan (CAMP) air monitoring data was distributed to the regulators weekly.
- Frequently asked questions regarding the stack demolition were posted to the BNL internal website.
- Several areas of debris potentially containing asbestos in the confinement dome were evaluated. A follow-up entry by the asbestos shop will be made to clean up any potential asbestos containing material and post these areas with asbestos warning signs.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- The NYSDEC Project Manager conducted a site visit of the stack exterior coating abatement and Building 650 demolition 11/3/20.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- Demolition of the stack is scheduled to begin early December.

SOIL AND WATER REMEDIATION

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements:

- The IAG monthly teleconference was held 11/5/20 and included updates on PFAS Phase 5 characterization, the draft annual groundwater update presentation for the upcoming CAC meeting, and Building 650 and HFBR stack demolition.
- The virtual CAC meeting was held 11/12/20 and included brief updates on the Building 650 and HFBR stack demolition, as well as the annual groundwater update.
- The annual IAG Schedules Update was submitted to the regulators 11/20/20. EPA provided their approval 12/1/20.
- The annual letters offering the four remaining homeowners not hooked-up to public water free private well testing were distributed 11/5/20.
- Work continued on the Phase 5 PFAS characterization and planned remediation including:
 - The analytical data from the initial 67 temporary wells (Geoprobes) downgradient of the Current and Former Firehouses was reviewed. BNL has determined that up to seven additional temporary wells are needed to fill in data gaps. The locations have been marked in the field, and digging permits are being processed.

- The 30% design for PFAS source area groundwater treatment systems is being prepared.
- Procurement is underway for purchase of two 20,000 pound carbon units for the planned PFAS groundwater treatment system for the Current Firehouse plume.
- Performing repairs to the pump in North Street East ethylene dibromide (EDB) extraction well NSE-4.
- NYSDEC/NYSDOH provided comments on the Building 650 Demolition Work Plan 11/25/20. Responses are being prepared.
- The flow sensor on OU VI EDB extraction well EW-1 flow meter was replaced and the well was restarted.
- Completed repair to the Middle Road/South Boundary/Western South Boundary wet well pumps and piping.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- The Laboratory continued Phase 2 operations. The Groundwater Protection Group (GPG) maintained minimal staff working on-site to manage field activities. All other GPG staff continue to work remotely.
- NYSDEC to provide follow-up letter as a result of the August inspection of the PR-WC-06 sediment cleanup area vegetation recovery by the NYSDEC Biologist.

Planned Actions for the Next 90 Days

- The Laboratory and GPG will continue Phase 2 operations.
- The monthly IAG teleconference is scheduled for 12/3/20 and will include updates on Building 650 and HFBR stack demolition, and Phase 5 PFAS characterization.
- The virtual Brookhaven Executive Roundtable meeting is scheduled for 12/16/20 and will include a presentation on the annual groundwater cleanup program status.
- Prepare and submit a summary data report to the regulators on the Phase 4 PFAS/1,4-dioxane sampling of ~360 on-site and off-site monitoring wells and off-site extraction wells. A Phase 5 PFAS monitoring data summary report will also be prepared.
- Install up to seven additional PFAS Phase 5 temporary wells downgradient of the Current and Former Firehouses in December.
- Prepare and submit the design report for PFAS Source Area Groundwater Treatment Systems to the regulators in March.
- Perform repairs to the roof of the Building 96 Treatment System extraction well RTW-1 well-house.
- Install new pump in the North Street East EDB extraction well NSE-4.
- Repair/replace pump in Middle Road extraction well RW-7.
- Submit the 3rd Quarter Remediation System Operations Report to the regulators.
- The BNL Water and Sanitary Planning Team is scheduled to meet 12/2/20.